

CLAIMS

1. (Currently Amended) In an appliance with a relatively stationary component and a rotatable vessel for holding a supply of material, a method comprising:
- charging [said] the vessel with [said] the supply of material;
- rotating [said] the vessel about an axis;
- 5 causing the vessel to engage the relatively stationary component by rapidly accelerating
- [said] the rotation of [said] the vessel;
- determining an amount of energy with which [said] the vessel has engaged [said] the relatively stationary [part] component following a start of [said] the rapid acceleration;
- 10 comparing [said] the amount of energy with a predetermined value; and
- sending a signal indicative of an unbalance condition if [said] the amount of energy exceeds [said] the predetermined value.
2. (Currently Amended) The method of claim 1, wherein [said] the appliance is an automatic washing machine.
3. (Currently Amended) The method of claim 2, wherein [said] the washing machine is a vertical axis washer.
4. (Currently Amended) The method of claim 2, wherein [said] the washing machine is a horizontal axis washer.
5. (Currently Amended) The method of claim 1, wherein [said] the appliance is a clothes treating appliance and [said] the material comprises a fabric load.

6. (Currently Amended) The method of claim 1, wherein [said] the relatively stationary component comprises a cabinet of [said] the appliance.

7. (Currently Amended) The method of claim 1, wherein [said] the step of determining an amount of energy comprises rotating [said] the vessel with an electric motor, measuring a current supplied to [said] the motor, isolating a frequency of [said] the current relating to [said] the engagement of [said] the vessel with [said] the relatively stationary [part] component and generating a curve representing [said] the frequency, comparing [said] the frequency with a curve representing a reference motor current, integrating areas above [said] the reference curve within [said] the engagement curve, and accumulating [said] the areas for a predetermined time.

8. (Currently Amended) The method of claim 7, wherein [said] the step of comparing comprises comparing [said] the accumulated area value with a predetermined threshold value.

9. (Currently Amended) An appliance comprising:
a vessel mounted for rotation about an axis, configured to receive a supply of material and arranged relative to a relatively stationary part of [said] the appliance whereby [said] the vessel [will] is configured to engage [said] the relatively stationary part in a severe unbalance loading condition of [said] the material in [said] the vessel while [said] the vessel is rotating;
a control arranged and configured to rapidly accelerate a rotation of [said] the vessel causing the vessel to engage the stationary part, determine an amount of energy with which [said] the vessel has engaged [said] the relatively stationary part, compare [said] the amount of energy

with a predetermined value, and send a signal indicative of an unbalance condition if [said] the
10 amount of energy exceeds [said] the predetermined value.

10. (Currently Amended) An appliance according to claim 9, wherein [said] the
appliance is an automatic washing machine.

11. (Currently Amended) An appliance according to claim 10, wherein [said] the
washing machine is a vertical axis washer.

12. (Currently Amended) An appliance according to claim 10, wherein [said] the
washing machine is a horizontal axis washer.

91
13. (Currently Amended) An appliance according to claim 9, wherein [said] the
appliance is a clothes treating appliance and [said] the material comprises a fabric load.

14. (Currently Amended) An appliance according to claim 9, wherein [said] the
relatively stationary [component] part comprises a cabinet of [said] the appliance.

15. (Currently Amended) An appliance according to claim 9, including an electric
motor drivingly connected to [said] the rotatable vessel.

16. (Currently Amended) An appliance according to claim 15, wherein [said] the
electric motor comprises a controlled induction motor and an inverter is provided in the control
5 connected to the motor, [said] the control further comprising a current measuring device
connected to a dc bus of [said] the inverter.

17. (Currently Amended) An appliance according to claim 16, wherein [said] the current measuring device provides an output signal representative of the current used by [said] the motor, [said] the control further including a digital filter connected to receive [said] the output signal, [said] the digital filter including a running average algorithm and providing an output
5 representative of an average current used by [said] the motor.

18. An appliance according to claim 9, wherein [said] the signal comprises one of an audible and visible signal to a user.

91 19. (Currently Amended) An appliance according to claim 9, wherein [said] the signal comprises an electrical signal transmitted to a further part of [said] the control.

20. (Currently Amended) An appliance having a rotatable vessel configured to receive a supply of material mounted within a relatively stationary housing, [said] the vessel rotatable about an axis and [said] the vessel being mounted in a fashion such that it is movable relative to [said] the housing in a direction perpendicular to [said] the axis, comprising:

an electrical motor drivingly connected to [said] the rotatable vessel,

a control operatively connected to [said] the motor and configured to rapidly accelerate a rotation of [said] the vessel through operation of [said] the motor causing the vessel to engage the relatively stationary housing, determine an amount of energy with which [said] the vessel has engaged [said] the relatively stationary [part] housing as reflected by a characteristic of electrical current drawn by [said] the motor, compare [said] the amount of energy with a predetermined value, and send a signal indicative of an unbalance condition if [said] the amount of energy exceeds [said] the predetermined value.
